

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A waveguide unit comprising:

a vertically polarized waveguide;

a horizontally polarized waveguide; and

a waveguide type-polarized wave converter interposed between said vertically polarized waveguide and ~~[[the]]~~ said horizontally polarized waveguide~~[[;]]~~,

said waveguide type-polarized wave converter having a slit on a face vertical to ~~[[its]]~~ a guiding direction, the shape of said slit being constituted by a combination of two quadrate parts and a connecting part for connecting the two quadrate parts, each of said quadrate parts being on a plane which contains orthogonal coordinate axes X and Y, and symmetrically located about the Y axis, each center point of the quadrates being located on the X axis, and at least a side of one of the quadrate parts makes an angle of 45 degrees with the X axis.

Claim 2 (Currently Amended): The waveguide unit according to claim 1, wherein ~~[[the]]~~ a dimension of said slit in ~~[[the]]~~ a direction to which the microwave travels is substantially set to 1/4 of ~~[[the]]~~ a group wavelength.

Claim 3 (Currently Amended): The waveguide unit according to claim 1 ~~[[or 2]]~~, wherein each side of said quadrates is at an angle of 45 degrees with the X axis.

Claim 4 (Currently Amended): The waveguide unit according to ~~either~~ one of ~~claim~~ claims 1 to 3, wherein ~~these~~ said vertically and horizontally polarized waveguides and said

polarized wave converter are integrally manufactured ~~but can be divided into~~ and the waveguide unit has two parts.

Claim 5 (Currently Amended): The waveguide unit according to claim 4, wherein [[said]] a divided face of said waveguide unit is at an angle of 45 degrees with the X axis or Y axis.

Claim 6 (Original): The waveguide unit according to claim 4, wherein at least one wall angle of the waveguide unit differs slightly from 0, 45, or 90 degrees.

Claim 7 (Original): The waveguide unit according to claim 4, wherein said quadrate parts of the slit are rounded or tapered at the end corners.

Claim 8 (Currently Amended): The waveguide unit according to claim 1, wherein said connecting part ~~forms~~ provides a ridge structure having a narrow and straight shape.